

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-6 (Cancelled)

Claim 7 (previously amended) An apparatus for relieving arterial blockage by increasing flexibility of an arterial wall without entering into a lumen of an artery, the apparatus comprising:

- i) surveying means for surveying a thickness of an arterial wall, and
- ii) external ablating means for ablating an exterior of the arterial wall to increase flexibility of the arterial wall.

Claim 8 (currently amended) An apparatus for relieving arterial blockage by increasing flexibility of an arterial wall without entering into a lumen of an artery, the apparatus comprising:

- i) surveying means for surveying a thickness of an aarterial wall;
- ii) external ablating means for ablating an exterior

of the arterial wall to increase the flexibility of the arterial wall; and

iii) [[An]] an ablating controller means for controlling the external ablation of the arterial wall by the external ablating ~~apparatus~~ means, said ablating controller means being interfaced between said surveying means and said external ablating means and being responsive to a signal from said surveying means, the signal relating to the arterial wall thickness.

Claim 9 (previously amended) The apparatus as claimed in claim 8, wherein said surveying means includes means to produce a 3D image of the arterial wall.

Claim 10 (previously amended) The apparatus as claimed in claim 9, wherein said surveying means is selected from a group of surveying means consisting of: mechanical imaging, ultrasound, magnetic resonance imaging, computed tomographic imaging using electromagnetic radiation and photonic imaging.

Claim 11 (previously amended) The apparatus as claimed in claim 8, wherein said ablating means includes a laser.

Claim 12 (previously amended) The apparatus as claimed in claim 11, wherein the laser is a femo-second pulsed laser.

Claim 13 (previously amended) The apparatus as claimed in claim 12, wherein the pulsed laser includes means for producing pulses which are of 20 to 100 fs duration.

Claim 14 (previously amended) The apparatus as claimed in claim 12, wherein the pulsed laser produces radiation of 3-5 J/cm<sup>2</sup> fluence.

Claim 15 (currently amended) The apparatus as claimed in claim 11, wherein the pulsed laser produces a laser spot diameter between 10 to 100  $\mu$ m.

Claim 16 (previously amended) The apparatus as claimed in claim 9, wherein the ablating controller means includes means to control ablation to provide a uniform residual arterial wall.

Claim 17 (previously amended) The apparatus as claimed in claim 9, wherein the ablating controller means includes means to controls ablation to provide a plurality of blind holes in the exterior of the arterial wall.

Claim 18 (previously amended) The apparatus as claimed in claim 9, wherein the ablating controller means includes means to control ablation to provide a plurality of furrows in the exterior of the arterial wall.

Claim 19 (previously amended) The apparatus as claimed in claim 8 wherein said ablating means includes a mechanical ablation device including at least one blade mounted on at least one pressure sensing transducer.

Claim 20 (previously amended) The apparatus of claim 19 wherein said at least one pressure sensing transducer is mounted on a micro-electro-mechanical ~~means~~ controller for controlling an incision of said at least one blade along two axes.